

REMARKS

Claims 1-12 are presently pending in the application. Claims 8-12 have been added.

Reconsideration and allowance of all claims are respectfully requested in view of the following remarks.

The Examiner has requested that the specification be checked to determine the presence of all possible minor errors. The Applicants have amended the specification to correct for any grammatical errors.

The Examiner has rejected Claims 1-7 under 35 U.S.C. §102(b) as being anticipated by, or under 35 U.S.C. §103 as being obvious over EP 997960 (hereafter "EP '960"). For the following reasons, the prior art rejection is respectfully traversed.

The Applicants respectfully submit that EP '960 does not teach or suggest a secondary battery including a positive electrode, a negative electrode, and an electrolyte, wherein a capacity of the negative electrode is expressed by the sum of a capacity component by occluding and releasing light metal and a capacity component by precipitating and dissolving light metal; means for stably precipitating the light metal in the negative electrode in a state where an open circuit voltage is lower than an overcharge voltage; and wherein the ratio (A/B) of thickness A of the positive electrode mixture layer and thickness B of the negative electrode mixture layer is 0.92 or more, as recited in Claim 1.

Rather, EP '960 discloses only that if the nonaqueous electrolyte impregnated in the negative electrode is not distributed uniformly in the non-aqueous secondary batter, current concentration takes place in the negative electrode so as to cause precipitation of lithium dendrite. Thus, to avoid this precipitation of lithium dendrite, the porosity is set high in the negative electrode so as to improve the permeability of the nonaqueous electrolyte.

However, in the present invention, the stable precipitation of the lithium light metal is desired and can be achieved when the open circuit voltage is lower than an overcharge voltage and wherein the ratio (A/B) is 0.92 or more. Thus, in the present invention, some of the lithium light metal which is not intercalated into the carbonaceous material (i.e., negative electrode material), would precipitate around

the carbonaceous material and this state of lithium is more stable than the conventional lithium metal in a secondary battery.

Further, the experiments performed by the Applicants, as shown in Table 1, show that the ratio (A/B) is a result effective variable, achieving unexpected results. With the ratio (A/B) being 0.92 or more, a high energy density and discharging capacity retention rate, with a Li Metal diffraction peak, is achieved.

Accordingly, Claim 1 is neither anticipated nor obvious over EP '960, and the rejection of Claim 1 under 35 U.S.C. §102(b) or under 35 U.S.C. §103, should be withdrawn.

Further, since Claims 2-12 depend from Claim 1, they are also patentably distinguishable over EP '960 for the reasons cited above with respect to Claim 1.

If the Examiner believes that there is any issue which could be resolved by a telephone or personal interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee for such an extension is to be charged to Deposit Account No. 19-3140.

Respectfully submitted,

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